AMENDMENTS IN THE CLAIMS

1. (Original) A channel spreading method in a CDMA (Code Division Multiple Access) communication system which spreads a pair of symbols obtained by repeating a first symbol with a quasi-orthogonal code having a given length to transmit the spread symbols through a first antenna and spreads a second symbol and an inverted symbol of said second symbol obtained by repeating said second symbol with said quasi-orthogonal code to transmit the spread symbols through a second antenna at the same time, the method comprising the steps of:

spreading one of said pair of symbols obtained by repeating said first symbol with a portion of said quasi-orthogonal code and spreading another symbol of said pair of symbols with a remaining portion of said quasi-orthogonal code; and

spreading the second symbol with a portion of said quasi-orthogonal code and spreading said inverted symbol of said second symbol with the remaining portion of said quasi-orthogonal code.

2. (Original) The channel spreading method as claimed in claim 1, wherein the quasi-orthogonal code spreading step comprises the step of mixing one symbol with a chip signal of a first half period of the quasi-orthogonal code and mixing another symbol with a chip signal of a second half period of the quasi-orthogonal code, so as to spread two symbols for duration of one quasi-orthogonal code.

3. (Currently Amended) The channel spreading method as claimed in claim 2, further comprising the steps of:

generating a mask index and a Walsh code index corresponding to an input index for generating the quasi-orthogonal code;

generating a mask for the quasi-orthogonal code corresponding to the mask index, and generating a Walsh code corresponding to the Walsh code index; and

outputting, as the quasi-orthogonal code, a quasi-orthogonal code generated by mixing a mask for the generated ~~second~~ quasi-orthogonal code with the Walsh code.

4. (Original) A channel spreading device in a CDMA communication system having first and second antennas to perform an orthogonal transmit diversity function, comprising:

a first transmitter having a first spreader for spreading a pair of symbols obtained by repeating a first symbol with a quasi-orthogonal code having a given length to transmit the spread symbols through a first antenna, spreading one of said pair of symbols with a portion of said quasi-orthogonal code and spreading another symbol of said pair of symbols with a remaining portion of said quasi-orthogonal code; and

a second transmitter having a second spreader for spreading a second symbol and an inverted symbol of said second symbol obtained by repeating said second symbol with said quasi-orthogonal code to transmit the spread symbols through a second antenna, spreading said second symbol with a portion of said quasi-orthogonal code and spreading said inverted symbol of said second symbol with the remaining portion of said quasi-orthogonal code.

5. (Original) The channel spreading device as claimed in claim 4, wherein each of the first and second spreaders mixes one symbol with a chip signal of a first half period of the quasi-orthogonal code and mixes another symbol with a chip signal of a second half period of the quasi-

orthogonal code, so as to spread two symbols for duration of one quasi-orthogonal code.

6. (Currently Amended) The channel spreading device as claimed in claim 5, further comprising:

a controller for generating a mask index and a Walsh code index corresponding to an input index for generating the ~~second~~ quasi-orthogonal code;

a mask generator for generating a mask for the ~~second~~ quasi-orthogonal code corresponding to the mask index;

a Walsh code generator for generating a Walsh code corresponding to the Walsh code index; and

a spreading code generator for outputting, as the quasi-orthogonal code, the ~~second~~ quasi-orthogonal code generated by mixing a mask for the generated ~~second~~ quasi-orthogonal code with the Walsh code.

7. (Currently Amended) A channel spreading method in a CDMA (Code Division Multiple Access) communication system comprising the steps of:

generating a first pair of symbols to duplicate an input;

generating a second pair of symbols to create a complemental symbol of the input symbol;

~~duplicating a first input symbol to create a first pair of symbols;~~

~~matching a second input symbol with its complement to create a second pair of symbols;~~

spreading the first pair of symbols by a ~~first~~ quasi-orthogonal code in order to transmit the spread first pair of symbols through a first antenna; and

spreading the second pair of symbols by a ~~second~~ quasi-orthogonal code in order to

transmit the spread second pair of symbols through a second antenna.

8. (Currently Amended) The channel spreading method in claim 7 wherein the ~~first and second~~ quasi-orthogonal codes used to spread the first and second pair of symbols are the same.

9. (Currently Amended) The channel spreading method in claim 7 wherein the ~~first and second~~ quasi-orthogonal codes used to spread the first and second pair of symbols are different.

10. (Currently Amended) The channel spreading method in claim 7 wherein one of the first pair of symbols is spread by a portion of the ~~first~~ quasi-orthogonal code and other of the first pair of symbols is spread by the remaining portion of the ~~first~~ quasi-orthogonal code.

11. (Currently Amended) The channel spreading method in claim 7 wherein one of the second pair of symbols is spread by a portion of the ~~second~~ quasi-orthogonal code and other of the second pair of symbols is spread by the remaining portion of the ~~second~~ quasi-orthogonal code.